WHAT IS CLAIMED IS:

1. A surface acoustic wave device comprising:

a first substrate;

a surface acoustic wave chip attached to the first substrate; and

a second substrate that hermetically seals the surface acoustic wave chip,

at least one of the first and second substrates comprising silicon,

the first and second substrates having joining surfaces,

an electric circuit being formed on a surface area of the first substrate other than the joining surfaces.

2. The surface acoustic wave device as claimed in claim 1, wherein the joining surfaces of the first and second substrates subjected to a surface activation process.

3. The surface acoustic wave device as claimed in claim 1, further comprising a metal layer interposed between the joining surfaces of the first and second substrates.

4. The surface acoustic wave device as claimed in claim 3, wherein the metal layer has a joining surface subjected to a surface activation process.

5. The surface acoustic wave device as claimed in claim 1, wherein the other one of the first and second substrates comprises sapphire.

6. The surface acoustic wave device as claimed in claim 1, wherein:

the surface acoustic wave chip has first pads,

and the first substrate has second pads electrically connected to the first pads; and

the surface acoustic wave chip is mounted on the first substrate so that the first pads face the second pads.

7. The surface acoustic wave device as claimed in claim 1, wherein:

the surface acoustic wave chip has first pads, and the first substrate has second pads electrically connected to the first pads; and

the surface acoustic wave chip is mounted on the first substrate so that the first pads face the second pads.

8. The surface acoustic wave device as claimed in claim 7, wherein the surface acoustic wave chip has a back surface spaced apart from the second substrate.

9. The surface acoustic wave device as claimed in claim 7, wherein the surface acoustic wave chip has a back surface attached to the second substrate.

10. The surface acoustic wave device as claimed in claim 1, wherein one of the first and second substrates has a cavity that houses the surface acoustic wave chip.

11. The surface acoustic wave device as claimed in claim 1, wherein the first and second substrates have respective cavities in which the surface acoustic wave chip is housed.

12. The surface acoustic wave device as claimed in claim 1, wherein the surface acoustic wave device comprises at least one filter.

13. The surface acoustic wave device as claimed in claim 1, wherein the electric circuit comprises an impedance matching circuit electrically connected to the surface acoustic wave chip.

14. The surface acoustic wave device as claimed in claim 1, wherein:

the surface acoustic wave device comprises two filters connected to a common input/output terminal; and

the electric circuit comprises an impedance matching circuit provided between the common input/output terminal and at least one of the two filters.

15. The surface acoustic wave device as claimed in claim 1, wherein said at least one of the first and second substrates that comprises silicon has a resistivity equal to or greater than 100 Ω·cm.

16. The surface acoustic wave device as claimed in claim 1, wherein the first substrate has a plate shape and the second substrate has sidewalls that define a cavity housing the surface acoustic wave chip.

17. The surface acoustic wave device as claimed in claim 1, wherein the first substrate has sidewalls that define a cavity housing the surface acoustic wave chip, and the second substrate has a plate shape.

18. The surface acoustic wave device as claimed in claim 3, wherein the metal layer comprises gold.

19. A method of fabricating a surface acoustic wave device comprising the steps of:

mounting a surface acoustic wave chip on a first substrate on which an electric circuit is formed; and

joining the first substrate and a second substrate so that the surface acoustic wave chip is hermetically sealed,

at least one of the first and second substrates comprising silicon,

the electric circuit being positioned on a surface area of the first substrate other than joining surfaces of the first and second substrates.

20. The method as claimed in claim 19, further comprising subjecting the joining surfaces to a surface activation process before the first and second substrates are joined.

21. The method as claimed in claim 19, further comprising forming a metal layer on at least one of the joining surfaces before the first and second substrates are joined.

22. The method as claimed in claim 19, further comprising forming metal layers on the joining surfaces before the first and second substrates are joined.

23. The method as claimed in claim 19, wherein the step of joining simultaneously comprises a step of joining multiple first substrates integrally formed and multiple second substrates integrally formed.